

WHAT IS CLAIMED IS:

1. A machine for producing strip packages, including:

a feeding station for feeding products to a packaging group, which places and seals each of said products in a relative welded pockets distributed on a continuous strip, which defines corresponding rows, longitudinal and transversal, of said pockets;

at least one group, for printing data and/or codified information on each welded pocket and/or between the adjacent welded pockets;

a working station, situated in cascade with said packaging group and aimed at supplying to the outlet section a plurality of strip packages, said working station including:

at least one feeler group for verifying the presence of an product in each corresponding pocket; at least one working group for longitudinal precutting and/or cutting of the continuous strip in the portions comprised between adjacent longitudinal rows;

at least one drawing group for moving forward the continuous strip of welded pockets;

at least one cutting group, for transversal cutting the continuous strip in the portions comprised between the adjacent transversal rows;

with said packaging group arranged in a substantially vertical configuration; and including direction-changing means for making said continuous strip pass from a substantially vertical configuration, at the outlet of said packaging group, to a substantially horizontal configuration, at the inlet of said working station.

2. A machine according to claim 1, further including, situated is said working station, at least one pre-breaking group aimed at transversal precutting of said continuous strip in portions comprised between adjacent transversal rows of welded pockets.

3. A machine according to claim 2, wherein said pre-breaking group includes at least one pair of counter-rotating pre-breaking rolls, having horizontal and parallel axes, touching each other along a common generatrix, the outer surfaces of said pre-breaking rolls having cutting means, capable of precutting between adjacent transversal rows of welded pockets of said continuous strip.

4. A machine according to claim 1, wherein said direction-changing means include a pre-breaking group, situated below said packaging group and aimed also at transversal precutting the continuous strip in portions comprised between adjacent transversal rows of welded pockets; said pre-breaking group being capable of changing the forward direction of the continuous strip from a substantially vertical configuration to a substantially horizontal configuration.

5. A machine according to claim 4, wherein said pre-breaking group includes at least one pair of counter-rotating pre-breaking rolls, having horizontal and parallel axes, touching each other along a common generatrix, the outer surfaces of said pre-breaking rolls having cutting means, capable of precutting between adjacent transversal rows of welded pockets of said continuous strip.

6. A machine according to claim 1, further including a first machine section, substantially vertical, including at least

said feeding station and said packaging group, and a second machine section, substantially horizontal, including at least said working station.

7. A machine according to claim 1, further including selecting means, arranged in cascade after said cutting group, operated in step relation with the latter and aimed at conveying strip packages, leaving said working group, to said outlet section.

8. A machine according to claim 7, further including a plurality of collecting sections situated near said cutting group and at a lower level with respect to said selecting means, for receiving strip packages detected as faulty by said feeler group and released by said selecting means; said selecting means being operated to slope vertically.

9. A machine according to claim 8, further including, arranged in cascade after said selecting means, a terminal group, which supplies, at the outlet, strip packages in controlled configuration to a transferring line to feed a packaging machine.

10. A machine according to claim 9, wherein said terminal group includes:

raising means, aimed at receiving strip packages from said selecting means, operated in step relation with the latter, and moving vertically from a lowered position, in which they are substantially coplanar with said terminal section, to a raised position, in which they are situated near an outlet section, substantially coplanar with said transferring line;

a plurality of collecting magazines, situated in said outlet section, each of which is associated to a corresponding

longitudinal row of said continuous strip, and which are aimed at receiving strip packages carried by said raising means, in order to form corresponding piles;

guiding means, cooperating with said raising means, aimed at changing the distances between the latter during the transition from said lowered position, in which said distances are defined by said selecting means, to said raised position, in which the distances is set to match the spacing apart of said collecting magazines;

pusher means, situated in said outlet section, operated in step relation with said raising means to convey said strip packages situated in each of said collecting magazines to relative seats made in said transferring line.

11. A machine according to claim 10, wherein said raising means include at least one transversal plate, operated in step relation with said selecting means, and moving between said terminal section and outlet section, with a plurality of longitudinal plates supported by said transversal plate, each of the longitudinal plates being associated to a corresponding longitudinal row of said continuous strip and equipped with gripping means, which are operated in step relation with the operation of said transversal plate to stabilize said strip packages supported by the longitudinal plate.

12. A machine according to claim 11, wherein said guiding means, cooperating with said raising means, include a plurality of linear cam grooves, each of which interacts with a corresponding longitudinal plate during the movement of the latter between said lowered position and raised position.

13. A machine according to claim 11, wherein each of said collecting magazines includes relative lateral walls, whose lower parts include corresponding horizontal teeth, aimed at being inclined, in step relation with the movement of said longitudinal plates, so as to change the inlet section of the corresponding open bottom, increasing it, and to allow the strip packages carried by said longitudinal plates, to be introduced from the bottom, so as to define the above piles of strip packages inside said collecting magazine, and in that said horizontal teeth, when in configuration substantially parallel to said lateral walls (102a, 102b), support said piles (17a) of strip packages.

14. A machine according to claim 13, wherein said transferring line is arranged angularly with respect to said selecting means.

15. A machine according to claim 14, wherein said transferring line is arranged longitudinally, or transversely with respect to said selecting means.

16. A machine according to claim 15, wherein said selecting means include a plurality of selecting belts, which are operated in step relation with said cutting group, and each of which is associated to a corresponding longitudinal row of said continuous strip, and able to accelerate the strip packages coming from said cutting group.

17. A machine according to claim 16, wherein said selecting belts are endless and wind on corresponding driving and driven wheels.

18. A machine according to claim 1, wherein said continuous strip of welded pockets is moved continuously by said drawing group.